

Appl. No. 09/612,628  
Amdt. Dated July 8, 2003  
Reply to Office action of April 8, 2003  
Attorney Docket No. P11542/040020-276  
EUS/J/P/03-3065

### Listing of Claims:

1. (Currently Amended) A method for transmission, in real time, of a speech block having a first bit rate containing parameters representing the data in a corresponding segment of a digitally represented data stream, having a first bit rate, comprising the steps of

compressing said speech block in an encoder at a first node (11, MS, 53), by encoding the data stream, whereby a second bit rate, being considerably lower than the first bit rate, is obtained,

supplying error discovering encoding in the encoder at the first node, after the compression, whereby the compressed speech block obtains a third bit rate, being slightly higher than the second rate,

sorting positions of speech parameters in said compressed speech block according to importance;

sending the compressed speech block data stream through a packet-oriented connection (12, 52, 54), transmission chain comprising a radio link (RL) and a statistically multiplexed packet-oriented link, wherein said radio link and said packet oriented link are connected via a radio base station (BTS) in a mobile radio network (PLMN);

decompressing the speech block data stream at a second node (11, MS, 53), whereby the first bit rate is regained,  
characterized by the further steps of

supplying parity bits (CRC) to the data stream, at the first node, after the compression, whereby the data stream obtains a third bit rate, being slightly higher than the second rate,

comparing, at the second node, said parity bits (CRC) in relation to the associated with said speech block data stream for any discovery of errors erroneously detected data in the data stream, wherein at least one of the first and second nodes is part of the mobile radio network (PLMN).

2. (Original) A method according to Claim 1, wherein one of the first and the second nodes is a mobile station (MS) with a connection through a radio link (RL).

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3. (Currently Amended) A method according to Claim 1, wherein the data stream, when being compressed, is divided into segments corresponding to time periods of a certain length, and for each segment a speech data block (SPB) is created, containing parameters representing the data of the segment.

4. (Original) A method according to Claim 3, wherein the importance of the parameters, in relation to each other, has been graded and the position of the parameters in the data block is sorted according to importance.

5. (Currently Amended) A method according to Claim 4, wherein the parameters are divided into two classes, depending upon their importance, and where the parameters in the most important class are supplied with said parity bits (CRC) for error check.

6-7 (Canceled)

8. (Currently Amended) A method according to claim 3, wherein the data stream constitutes digitally converted speech, the data block (SPB) is a speech block (SPB) and the parameters are speech parameters.

9. (Original) A method according to Claim 3, wherein the data stream is a digitally converted video signal.

10. (Currently Amended) A method according to Claim 3, wherein the speech blocks ~~data blocks~~ (SPB) are sent to the second node (MS, 11, 53) even if the speech blocks ~~are data block~~ (SPB) is erroneously detected during the sending.

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11. (Currently Amended) An encoder unit ~~(11)~~ having means to receive a data stream having a first bit rate, and means to compress the data stream by dividing the data stream into segments corresponding to partial periods, comprising:

means for creating a speech block (SPB) for each partial period ~~and for each partial period create a data block (SPB)~~ containing parameters representing the data in the corresponding segment, whereby a stream of said speech blocks ~~data blocks (SPB)~~ is produced having a second bit rate considerably lower than the first bit rate, ~~characterized by~~

means to supply parity bits to the speech block for the discovery of errors occurring during transmission of the speech block; and

means to sort the position in each said speech block ~~data block (SPB)~~ of the parameters being part thereof, alternatively the bits being part thereof, according to a predetermined order ~~ranking order, specified in advance,~~ based on the mutual importance of the parameters, alternatively of the bits, ~~and~~

~~means to supply parity bits to the data block (SPB), for the discovery of errors occurring during transmission of the data block (SPB).~~

12. (Original) An encoder unit according to Claim 11, having means to speech-encode the incoming data stream when it represents speech.

13. (Original) An encoder unit according to Claim 11, having means to video-encode the incoming data stream when it constitutes a video signal.

14. (Currently Amended) An encoder unit according to Claim 11, having further comprising

means to receive a stream of said speech blocks ~~data blocks (SPB)~~ with a third bit rate, and which contains parameters,

means to identify parity bits (CRC) having been supplied to the ~~associated with said speech blocks data blocks (SPB), each~~ and to compare bits in said speech blocks ~~the data block~~ with said parity bits for error discovery, and

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means to decode the parameters and thereby create a data stream with a fourth bit rate, being higher than the third bit rate.

15. (Previously Amended) A mobile radio network (PLMN) with an encoder unit according to Claim 11.

16. (Currently Amended) A mobile radio network (PLMN) comprising  
at least one stationary speech encoder unit ~~(11)~~ having a connection to a duplex pulse code modulation (PCM) link, a connection to a packet-oriented link ~~(12)~~, having means to compress a stream of speech from the PCM link and pass it on, in compressed form, as a stream of speech blocks (SPB) through the packet-oriented link ~~(12)~~, and having means to receive, from the packet-oriented link ~~(12)~~, a stream of speech blocks, means to decode the speech blocks and for forming a decompressed speech stream, being sent through the PCM link,

at least one base station (BTS) connected to the packet-oriented link and connected to at least one radio link (RL) having means to receive a stream of speech blocks ~~(SPB)~~ from the packet-oriented link and for passing ~~pass~~ the stream of speech blocks ~~(SPB)~~ on through the radio link (RL), and having means to receive, a stream of speech blocks from the radio link (RL) ~~a stream of speech blocks~~ and pass them on through the packet oriented link ~~(12)~~; and

a mobile station (MS) having

means to receive, from the radio link (RL) the stream of speech blocks ~~(SPB)~~,

means to decode the speech blocks ~~(SPB)~~ forming a decompressed stream of speech,

means to electrically register acoustic speech, means to compress the registered speech, at which the speech blocks ~~(SPB)~~ are formed, and

means to send the speech blocks ~~(SPB)~~ through the radio link, ~~characterized by~~ said sending means further comprising:

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means to provide, in the speech encoder unit (12) as well as in the mobile station (MS), created speech blocks (SPB) with associated parity bits, and

means to compare, in the mobile station (MS) and the speech encoder unit (11), the content of received speech blocks (SPB) with accompanying parity bits for possible error discovery, to be able to, when errors occur, hide the errors during the decoding of the received speech blocks (SPB).